



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,176	06/19/2002	Constantine Grancharov	22993-2	1130
29127	7590	12/12/2007	EXAMINER	
HOUSTON ELISEEVA 4 MILITIA DRIVE, SUITE 4 LEXINGTON, MA 02421			TANG, KAREN C	
		ART UNIT	PAPER NUMBER	
		2151		
		MAIL DATE		DELIVERY MODE
		12/12/2007		PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.	10/064,176	Applicant(s)	GRANCHAROV ET AL.
Examiner	Karen C. Tang	Art Unit	2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 18 October 2007.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-9, 11-27 and 29-44 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-9, 11-27 and 29-44 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

- A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/18/2007 has been entered.
- Claims 1-9, 11-27, 29-44 are presented for further examination.

Response to Arguments

Applicant's arguments filed 10/18/07 have been fully considered but they are not persuasive.

Applicant argues that Stern in view of Kraft and in further view of Fannin does not discloses "locating, selecting, loading, and executing of script URLs that are created dynamically using script code by a web browser on a remotely located, or user's computer.

Examiner disagrees.

First, Examiner would like to discuss what is considered as "dynamically create one or more script URLs" in the claim limitation. Applicant submitted "dynamically create one or more script URLs" are defined in paragraph 0028 of the specification, and 0029 as the example. Furthermore, applicant summarize what is "dynamically create one or more script URLs" as "web pages have embedded script code which is used to dynamically create URLs" in argument/response filed on 10/18/07 page 16.

Examiner would further like to add on the definition on what is considered as "dynamically create one or more script URLs" that is also supported by applicant's specification, especially in the background of applicant's invention, paragraph 0003, that "..common to use script code to construct web page links, i.e., to create URLs dynamically". Thus, according to applicant its own specification and submission, the "dynamically create one or more script URLs" is a web page/web browser that is created by the script code, and thus, the URLs are being created dynamically.

After defining what is considered to be "dynamically create one or more script URLs", it is clear to see that the cited reference, Stern, teaches what is considered to be "dynamically create one or more script URLs". Stern discloses the web page is made of script code (refer to 0115, Lines 1-2), therefore, the webpage is dynamic, and thus, the URL is constructed by script code and is used by the web browsers. Therefore, Stern teaches the functions of "dynamically create one or more script URLs".

Applicant argues that Stern teaches away from the instant claim invention.

Examiner disagrees.

Stern indeed discloses and teaches many ways of resolving URLs in paragraph 0115 and even discloses what applicant already admitted prior art in its instant specification in paragraph 0006 (as admitted by applicant's remark/response, filed on 10/18/07, page 13). However, as applicant has already admitted earlier, that what is considered as "dynamically create one or more script URLs" in the claim limitation, is the script codes that construct the web page link and the web page/browser. Therefore, the "constructed link or URL" has already been embedded in web page disclosed by Stern as long as the web page contains the

script code and the web page itself is not made out of static HTML (as supported by applicant's background of invention, paragraph 0003). Therefore, Stern does not teach away from a URL resolution system.

Applicant argues that Kraft's teaching lie outside of the context of web crawlers, and does not discloses an analysis of the script code followed by the execution of only the specific portion of the code that is relate to the dynamic URL.

Examiner disagrees.

Within the limitations of the claim language, nowhere did the claims contain limitations of "analysis of the script code" followed by the execution".

However, as indicated in the previous office action, Stern discloses the system that "locating" script code (in order to extract link or extract links from the script, the system must first locate the script code, refer to 0115), and selecting the script code that possesses one or more specific portion.." (system is able to determine which script code contains the URL or link, refer to 0115).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the claimed invention in Claims 1-9, 11-25, 40-43 are directed to non-statutory subject matter.

The claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a

composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: in Claim 39, computer readable medium does not have any antecedent basis in the specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-9, 11-13, 15-27, 29-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stern et al (US 2002/0052928) hereinafter Stern in view of Kraft et al (US 2002/0147637) hereinafter Kraft in further view of Fannin (US 2003/0084034).

1. Referring to Claims 1, 26, 27, 40, 42, 43 and 44, Stern discloses a URL resolution system for resolving Universal Resource Locators (URLs) (refer to Title and Abstract), the URL resolution system comprising:
 - a website crawler (refer to 11, Fig 1) for crawling a website comprising one or more webages (refer to 0055) locating script code (scans the page content, in order to extract link or extract links from the script, the system must first locate the script code, refer to 0115, 0213) and selecting script code that possesses one or more script URLs (system is able to determine which script code contains the URL or link, refer to 0115); and portion which are used to dynamically create one or more script URLSs (URL that is made out of script code use to create the non-static web page, refer to 0055 and refer to 0115);
 - a script URL resolution component for loading said one or more webpages (crawler that it go through/load websites/webpages, in order to exam the script code in the webpage, refer to 0080, 0081 and 0213) causing examination of said one or more specific portions of the script code selected during the crawling to obtain the script URL which are used to dynamically create one or more script URLs (the system is executed in order to obtain the script URL, refer to 0081).

Stern does not expressly indicate a system that execute a script code in the system (not the script code in the web page) in order to obtain the script URL on the webpage.

Kraft discloses a system that execute a script code in the system (but describe the script code in the web page) in order to obtain the script URL on the webpage (refer to 0070).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to create a new URL by executing the script code in the system in order to obtain the script URL. The suggestion/motivation would have been that it is convenient to make a system that provides the dynamical way to parsers for every possible script language so the system is able to provide more complete URL lists when crawl from the web page.

Stern nor Kraft disclosed wherein said URL resolution system comprises a presentation unit to report non-resolving or broken URLs to a user.

Fannin, in an analogous art disclosed wherein said URL resolution system comprises a presentation unit to report non-resolving or broken URLs to a user (displaying is a form of notifying, refer to 0009).

Hence, providing the feature disclosed by Fannin, would be desirable for a user to implement in order to provide a better ways to properly gathered information contained in the webpages that are not easily found.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Stern and Kraft by including the features provided by Fannin.

2. Referring to Claim 2, Stern discloses wherein the website includes one or more web pages, and the website crawler crawls individual web pages associated with websites (refer to 0079, 0080), and has a crawling controller for controlling the website crawler (It is inherent that the

crawler consists of a controller because it is a form of software and computer consists of a processor, abstract, is a controller which control all software within the system.).

3. Referring to Claims 3 and 27, Stern discloses wherein the website crawler has a script code detector for determining if a web page uses script code to dynamically create at least one script URL (refer to 0115).

4. Referring to Claim 5, Stern discloses wherein the crawling controller receives results of script code examination from the script URL resolution component, and controls the website crawler based on the examination results (web crawler after examination, causing gathering the links, refer to 0055).

5. Referring to Claim 6, Stern discloses wherein the examination results include the script URL when the script code examination is successful, and the crawling controller controls the web crawler to crawl a web page identified by the script URL (refer to 0081 and 0080).

6. Referring to Claims 7 and 34, Stern discloses wherein the crawling controller (It is inherent that the crawler consists of a controller because it is a form of software and computer consists of a processor, abstract, is a controller which control all software within the system) controls the website crawler to crawl multiple web pages in parallel (refer to 0079).

7. Referring to Claims 8 and 33, Stern discloses wherein controller controls the website crawler to crawl the web page identified by the script URL immediately (refer to 0079).

8. Referring to Claims 9 and 35, Stern discloses wherein the crawling controller controls the website crawler to queue the web page identified by the script URL for crawling at a later time (refer to 0115 – 0144 and 0223 -0225 and 0081).

9. Referring to Claims 11, 29 and 31, Stern discloses wherein the website includes one or more web pages (refer to 0115-0144), the script code has a specific part that is used to create the script URL (refer to 0118-0140), and the script URL resolution component comprises¹. a web page loading controller (web browser, refer to 0026) for instructing a web page examiner to load the web page located by the website crawler (refer to 0111); and a script code execution controller for instructing the web page examiner to execute the specific part of the script code used in the loaded web page to obtain the script URL (refer to 0115-0144).

10. Referring to Claim 13, Stern discloses wherein the script code execution controller uses an execution function of the web page examiner to execute the specific part of the script code (refer to extract the script code of the web page and gather the URL, 0115 – 0144).

11. Referring to Claim 15, Stern discloses wherein the script URL resolution component outputs an execution result including the script URL (refer to 0225) when the execution of the script

code is successful, and the website crawler performs crawling of a web page identified by the script URL (refer to 0079).

12. Referring to Claim 16, Stern nor Kraft disclosed wherein said URL resolution system comprises a presentation unit to report non-resolving or broken URLs to a user (failure result when examination of the script code fails).

Fannin, in an analogous art disclosed wherein said URL resolution system comprises a presentation unit to report non-resolving or broken URLs to a user (displaying is a form of notifying, refer to 0009).

Hence, providing the feature disclosed by Fannin, would be desirable for a user to implement in order to provide a better ways to properly gathered information contained in the webpages that are not easily found.

Therefore, at the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the system of Stern and Kraft by including the features provided by Fannin.

13. Referring to Claim 17, Stern discloses wherein the URL resolution system further comprises a presentation unit to present the examination result to a user (it is inherent that computer consists of monitor which would load the web page/result to the screen, refer to 0002, and 0049).

14. Referring to Claim 18, Stern discloses wherein the script URL resolution component (URL, refer to 0084) is provided as a part of the URL resolution system (refer to Title and Abstract).

15. Referring to Claim 19, Stern discloses wherein the script URL resolution component is provided as a part of the website crawler (refer to 0115-0144).

16. Referring to Claims 12 and 20, Stern discloses wherein the website crawler includes the web page examiner (refer to 0115-0144 and 0081).

17. Referring to Claim 21, Stern discloses wherein the website has one or more web pages, and the script URL resolution component is a script URL gatherer for locating each URL contained in any of the web pages of the website and causing examination of a web page identified by each URL to resolve script code contained in the web page to obtain any script URL created by the script code (refer to 0055, 0115 - 0144).

18. Referring to Claim 22, Stern discloses further comprising an advanced web page examiner having: a web page loader (web page browser, refer to 0074 - 0081) for loading a web page identified by a URL received from the script URL gatherer (0115-0144), and a script code examiner (compiler, which is inherently embedded in the system that examine the script code) for examining the loaded web page to resolve any script URL that is created by script code in the loaded web page.

19. Referring to Claim 23, Stern discloses wherein the script code examiner (compiler, which is inherently embedded in the system that examine the script code) executes script code found in

the loaded web page, and returns the execution result (refer to 0055, 0119-0140) to the script URL gatherer (database, refer to 14, Fig 1).

20. Referring to Claim 24, Stern discloses wherein the advanced web page examiner (database queries, refer to 0032) is provided as a part of the URL resolution system (refer to 0068).

21. Referring to Claim 25, Stern discloses wherein the website crawler further comprises a script code detector for detecting a web page that uses script code to create at least one script URL (refer to 0144); and the script URL gatherer (database, refer to 14, Fig 1) sends to the advanced web page examiner a URL of the web page detected by the script code detector (refer to 0031 – 0032 and 0115-0144).

22. Referring to Claim 30, Stern discloses wherein the loading step comprises a step of instructing a web page examiner to load the located web page (refer to 0080 - 0081).

23. Referring to Claim 32, Stern discloses a step of continuing crawling of a web page identified by the script URL (refer to 0144).

24. Referring to Claim 36, Stern discloses wherein a website has one or more web pages (refer to 0144) and the locating step comprises steps of finding a URL in the web pages (refer to 0115-0144), and examining a web page identified by the URL to locate script code in the web page identified by the URL (refer to 0111, 0161-0221).

25. Referring to Claim 37, Stern discloses a step of selecting a web page that contains script code that is used to dynamically create at least one script URL (refer to 0115-0144), and wherein the examining step examines the selected web page (refer to 0111-0113, and 0222).

26. Referring to Claim 38, Stern discloses obtaining examination results including the script URL when the examination step is successful (refer to 0115 – 0144 and 0223) and a failure result when the examination step fails to obtain the script URL (refer to 0224); and presenting to a user the examination result including the script URL and/or the failure result (refer to 0031).

27. Referring to Claim 39, Stern discloses a computer readable medium storing (refer to 0082) the instructions and/or statements for use in the execution in a computer of a method for resolving Universal Resource Locators (URLs) (links/URL consists of statement which use to execute/load webpages on a monitor.), the method comprising steps of: locating script code which creates at least one script URL while crawling a website (refer to 0111, 0161-0221), and examining the script code to obtain the script URL from the examination result (refer to 0111-0113, and 0222).

Stern does not expressly indicate a system that execute a script code in the system (but disclosed the script code in the web page) in order to obtain the script URL on the webpage.

Kraft discloses a system that execute a script code in the system (not the script code in the web page) in order to obtain the script URL on the webpage (refer to 0070).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to create a new URL by executing the script code in the system in order to obtain the script URL. The suggestion/motivation would have been that it is convenient to make a system that provides the dynamical way to parsers for every possible script language so the system is able to provide more complete URL lists when crawl from the web page.

28. Referring to Claim 41, Stern discloses a computer program product for use in the execution in a computer of a method for resolving Universal Resource Locators (URLs) (web page, refer to 0024-0027), the computer program product comprising: a module for locating script code which creates at least one script URL while crawling a website (web scrawler, refer to 11, Fig 1); and a module for examining the script code to obtain the script URL from the examination result (data-extract system, refer to 0075).

Stern execution of the script code to obtain the script URL (refer to 0055).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stern et al hereinafter Stern (US 2002/0052928) in view of Kraft et al (US 2002/0147637) hereinafter

Kraft in further view of Fannin (US 2003/00847034) and Meyerzon et al (US 6,424,966).hereinafter Meyerzon.

29. Referring to Claim 4, Stern discloses wherein the script code detector has a generating function (output, refer to 0225) when the script code detector locate a web page that uses script code to dynamically create at least one script URL (refer to 0115 – 0144).

Stern, Kraft and Fannin did not expressly disclose the notification.

Meyerzon discloses the notification (refer to Col 2, Lines 39-60)

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Stern, Kraft, Fannin and Meyerzon by including a notification within the system when locating a web page.

The suggestion/motivation for doing so would have been that by notify the system when created a or retrieve a script URL, it would let the user knowing the status of the system which is currently processing information so in the case when the system is stuck indefinitely in a site trying to retrieve the information (refer to 0223), the user will be notified.

30. Referring to Claim 14, Stern discloses wherein the website crawler has a script code detector for determining if a web page uses script code to dynamically create at least one script URL (refer to 0115 - 0118), a web page that uses script code to dynamically create at least one script URL (refer to 0115-0144); and the web page loading controller controls (web browser, refer to 0026) loading of the located web page in response to the website crawler (refer to 0080).

Stern, Kraft, and Fannin did not expressly disclose the notification.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to combine Stern, Kraft, Fannin and Meyerzon by including a notification within the system when locating a web page.

The suggestion/motivation for doing so would have been that by notify the system when created a or retrieve a script URL, it would let the user knowing the status of the system which is currently processing information so in the case when the system is stuck indefinitely in a site trying to retrieve the information (refer to 0223), the user will be notified.

Conclusion

Examiner's Notes: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

A shortened statutory period for reply to this Office action is set to expire THREE MONTHS from the mailing date of this action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The examiner can normally be reached on M-F 7 - 3.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karen Tang


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100